A Sketch of the Life of Dr. Gouverneur Emerson.

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Descriptions of the peculiar attainments of members of the American Philosophical Society, and of their labors to increase and diffuse knowledge of truth of any kind, are interesting features in the Society's annals. For such reason it has long been a practice to have prepared a suitable notice or memoir of every resident member soon after his death.

At the close of his life Dr. Emerson had been a member of the Society more than forty-one years. He was warmly interested in its welfare, and took a more or less active part in its proceedings. Notwithstanding his worthiness of it, a tribute to his memory in the Society has not been recorded.

Just after his death, in 1874, it was suggested that I should prepare a notice of him. Inquiry at the time led to the belief that materials for a suitable memoir could not be easily obtained. Even among his intimate friends, Dr. Emerson was notably reticent about himself, never indulged in reminiscences of his past experience: in fact, his associates knew nothing of his life or career.

Recently, however, his near kinsmen have kindly opened sources of information, and now, after long delay, a sketch of his life and work, in sufficient detail for estimation of his character and measurement of his usefulness while living, is respectfully submitted.

Emerson is an ancient English surname and probably not hereditary.

The Emersons of Delaware sprang from a respectable English parentage, and were among the early colonists of Penn's province. They were all farmers, and proprietors of their farms.

The grandfather of the subject of the following sketch, Gouverneur—familiarly called Govey—Emerson, his wife Sarah, born Manlove, and their six children, were received into membership of the Duck Creek Meeting of the Society of Friends in 1757.* His youngest son, Jonathan, born July 17, 1764, married Ann Bell in 1794.† They had seven children,

* Records of Duck Creek Meeting, Kent county, Del.

† *Genealogical Note.*—Gouverneur Emerson married Sarah Manlove, 1746.
Issue—Jacob, b. 1751; m. Sarah Stout.
Manlove, b. 1759; m. Susan Blundell.
Jonathan, b. 1764; m. Ann Bell.

Robert Bell m. Mary O'Brien of Ireland.
Issue—Henry, Robert, Thomas, John, Mary, Agnes, Lucy.
Henry, m. Elizabeth Lewis.
John, m. Mary Lewis; issue—Ann, Margaret, Mary, Lucy, Eliza L., Stephen.
Ann (Bell) m. Jonathan Emerson. Issue—Gouverneur, Sarah (died), Mary, Susan B., Manlove (died) and Ann Eliza.

George Ennerton

two sons and five daughters, the youngest of whom is the sole survivor. The eldest of them, Gouverneur Emerson, was born August 4, 1795, near Dover, Kent county, Del. In after-life he remembered with pleasure that when little more than seven years old he was permitted to roam in the woods with a gun.

At an early age he was sent to the Westtown School, a famous boarding school under the direction of the Society of Friends, which was opened May, 1799, in Westtown township, Chester county, Pa. He returned to Dover in 1810, and was for a short time at a boarding school in Smyrna. Thence he was transferred to a classical school at Dover, the principal of which was the Rev. Stephen Sykes.

With the preliminary education acquired at those schools, and prompted by his mother, he began to study medicine at the age of sixteen, 1811, under the preceptorship of Dr. James Sykes, a prominent surgeon and eminent citizen, who was a first cousin of his mother. Dr. Sykes was once Governor of the State of Delaware, and during many years presided in its Senate.*

His father, Jonathan Emerson, died in 1812, leaving his family an ample real estate, consisting of farms and improvements thereon.

Gouverneur continued his study and went to Philadelphia, probably in the autumn of 1813, to attend medical lectures.

His mother, in 1814, married Manlove Hayes, who had children by two previous wives. He was born in 1769 and died in 1849, aged eighty years. The children of his third marriage were Harriet Sykes, Manlove and Charles P., all of whom are living. Their mother, a lady endowed with excellent womanly qualities and a strong character, so managed her family that her children and those of her husband were never aware of any difference or preference of kinship, and were affectionate friends during their lives.

Having attended three complete courses of lectures and submitted an inaugural thesis on *Hereditary Diseases*, the University of Pennsylvania granted Gouverneur Emerson, March, 1816, the degree of Doctor of Medicine. He was a member of the Philadelphia Medical Society from 1813, and was elected its Secretary in 1816.

Prior to his graduation he was a private pupil of Dr. Thomas Chalkley James, an eminent practitioner, who was professor of midwifery, the first

Ann m. (second time) Manlove Hayes, Esq., of York seat, near Dover, Del. His great-grandfather, Richard Hayes, the first *American* ancestor of the family, settled in Delaware in 1698, at the age of 20, and m. Dolly Manlove.

Issue—Harriet Sykes, Manlove, Charles P.

Mary m. 1st Jones, 2d Francis, 3d Edgar.

Agnes m. James Sykes (a delegate to the First American Congress).

Issue—James, Nancy (who m. Commodore Jacob Jones, U. S. Navy), Matilda, John, Harriet.

Lucy m. Rev. William Magaw, D.D., Rector of St. Paul's P. E. Church, Philadelphia. Buried under the church.

*Biographical Memoir of Dr. James Sykes. By Gouverneur Emerson, M.D. Journal of the Medical and Physical Sciences, February, 1823.

ever appointed, in the University. During this association a warm and enduring regard sprang up between them.

Dr. Robert Hutchinson Rose had purchased, in 1809, a hundred thousand acres of wild land,* which included the township of Silver Lake, near Montrose, the capital of Susquehanna county, Pa., and was endeavoring to attract settlers upon it. He and Prof. James were cordial friends. Possibly influenced by the Professor's good opinion of his young friend, Dr. Rose invited Dr. Emerson to be his family physician, to become a member of his household, and practise medicine in the neighborhood. Prof. James advised him to accept the offer, suggesting in support of his advice, that a settled occupation in the country would fortify his health, which at that time was slightly impaired.

Dr. Emerson arrived at Silver Lake about the end of September or beginning of October, 1816. He was a tall, slender man just past the twenty-first anniversary of his birth, and was, no doubt, hopefully forecasting the future of his career. Before he received Dr. Rose's invitation he had designed an excursion to the Northern States. After a survey of the position he was to occupy, he determined to delay beginning his work until after he had made his projected journey.

In a letter of seven closely-written foolscap pages, dated Silver Lake, Dec. 5, 1816, and addressed to his friend at home, Alexander L. Hayes,† he gives a full summary of his observations during his excursion.

He started alone on horseback from Silver Lake, October 15, 1816, and at the close of the next day reached Unadilla, a New York village, not very many miles beyond the northern boundary of Pennsylvania. There he was not a little surprised to learn that a Philadelphia banknote for $100, with which he had supplied himself to pay his traveling expenses, would be received only at a discount. He was obliged to give that note for ninety dollars in notes of New York banks. Travelers of the present time are not taxed in such manner, because our paper money has the same value everywhere in the United States.

He visited Schoharie, Schenectady, the Balstown Spa, Saratoga, and, passing over the Hudson river at Fish Neck, entered Vermont. From Rutland he crossed the Green Mountains to Montpellier and Danville; passed several days in Southern Canada, traversed New Hampshire and the province of Maine, and returned by the way of Waterford, Troy and Albany, to Silver Lake, after a ride of about 2000 miles.

Having been born and bred in the country, he naturally devotes a large part of his letter to descriptions of the soil and the agricultural value of lands which he saw on his way.

* Precisely, 99,200 acres. History of Susquehanna County, Pa. By Emily C. Blackman. Claxton, Remsen & Haffelfinger, Philadelphia, 1873.

† Alexander L. Hayes, son of Maulove Hayes by his first wife, was born in Sussex county, Del., March 7, 1793, and was President Judge of the Court of Common Pleas in Lancaster, Pa., from 1833 to 1849, when he resigned, and was again elected 1864 and died in office, 1873.

See, Biographical Encyclopedia of Pennsylvania. Philada., 1874.

In reference to the people he says : "The Yankees have a great deal of frankness about them. If they are very desirous of knowing your circumstances, and of course, inquisitive, they are willing to tell you their own. Knowledge, religion, civility and money are more equally diffused in New England than in the Middle and Southern States ; but there are not as many men of brilliant talents or true piety—more common civility but less polish, and few opulent men, and girls of course. * * * They have a fondness for title and distinction. The most respectable men by far are the tavern-keepers. * * * You will hear that Judge ——— keeps there, and that General ——— five miles this side, and that they are *nice* men ; a *nice* man and a fine Yankee are equivalent terms. * * * They call all kinds of vegetables sauce."

Dr. Emerson, who was probably the first physician settled there, practised his profession at Silver Lake nearly two years.

At the instance of a friend, Mr. Andrew Hodge, he was appointed, November, 1818, surgeon of a merchant ship, called the *Superior*, Captain John Hamilton, bound to China.

He joined the vessel, which had already dropped down the river, December 7, 1818. The weather was stormy and the wind adverse. The *Superior* did not get to sea till the 12th.

The cabin mess, composed of the officers of the ship and three passengers, counted eleven persons, a number quite sufficient to shield them from a sense of weariness or solitude.

Dr. Emerson kept a journal. A brief notice of the nature of sea-sickness is recorded the first day at sea.

On the 13th, out of sight of land, a brig from Prince's Island, coast of Africa, bound to Rhode Island, was spoken. She had been seventy days at sea and was short of water. As the quarantine laws were then very rigidly observed at Marseilles, the port to which the *Superior* was bound, to avoid risk of vitiating her clean bill of health which might be consequent upon direct personal communication with any vessel or place before reaching Marseilles, casks of water were thrown overboard and picked up by the brig.

On the 14th, being then in the Gulf stream, the Doctor notes in his journal the use of the thermometer in navigation.

January 26, 1819, the *Superior* arrived at Marseilles, thirty-five days from the Capes of the Delaware.

As soon as the ship entered the mole, the captain went to the Health Office, but was required to remain in his boat outside of the grate, and to throw his papers into a tub of vinegar presented to him, the object being to destroy any contagious matter they might contain. Letters brought for persons on shore, after being cut through in several places to give easy access to the vinegar, were treated in the same manner. Every vessel arriving was required to undergo quarantine. No person was permitted to land, and none to visit her from the shore. A guard was stationed on board to enforce observance of the rules. At the time the plague prevailed in the Barbary States.

A celebrated Dutch physician, Boerhaave, recommended distilled vinegar as an efficient remedy against putrid diseases. Vinegar was supposed to be antiseptic and therefore protective against all contagions. The hands of those who had to do with contagion were moistened with it, and their clothing and other objects were exposed to its vapors. During the plague of 1720, at Marseilles, it is said t at four convicted thieves, who were employed in caring for the sick, protected themselves from the contagion by the use of vinegar, and were granted their lives on condition that they would reveal the means they used to shield themselves in their perilous work. And hence, perhaps, came the preparation called "Thieves' vinegar."

But since modern studies of the processes of fermentation and putrefaction have led to the belief that they, as well as all contagions, are due to the presence of microscopic organisms, vegetal or animal, called mycroderms, bacilli, microbes, etc., vinegar has lost its antiseptic reputation.

Early on the morning of February 4, the Harbormaster came alongside of the *Superior*. Learning from the guard that no one on the ship was sick, he came on board; and, after disinfecting the officers and passengers in the cabin and the sailors in the forecastle, by exposing them to the pungent fumes of oxymuriatic acid gas (chlorine), he granted *pratique*, *i.e.*, liberty of the port. Then the ship was moved to the vicinity of the Custom House, and the gentlemen found quarters at the Hotel des Ambassadeurs.

After a sojourn of two months at Marseilles the *Superior* sailed April 5, and on the 15th anchored in Gibraltar bay; and was detained some time in quarantine, and afterwards many days waiting for a favorable wind. Before daybreak, May 6, 1819, the anchor was weighed and on the 7th the ship was fairly at sea.

August 1, the ship was anchored at Angier, Java, and on the 3d proceeded on her way. The anchor was let go again, Aug. 20, off Macao, where merchant ships bound to Canton were detained twenty-four hours. In the afternoon of the 21st a passport to proceed up the river was granted and a pilot sent on board. The ship started about half-past three o'clock P.M., and anchored in the Bocca Tigris sometime after midnight. The pilot landed the next morning to exhibit at the fort there the "chop" or permit to go up the river, and brought back two pilots and two Mandarins to remain on board till the ship reached Whampoa, the common anchorage of foreign ships trading at Canton. It is sixteen miles below the city. The *Superior* anchored in the evening of the 23d, and on the 26th, Dr. Emerson and fellow-voyagers were lodged in Swedes Factory at Canton.

In a letter to his mother, dated November 5, 1819, Dr. Emerson says: "After the first impressions of the abundant novelties wore off, the dull uniformity which followed became tedious, and time now appears to fly slowly."

He relates that in consequence of drinking Samshoo, a liquor prepared from rice, which in excess produces a fierce, maniacal intoxication, the crew of the *Superior* mutinied, and, in the absence of the captain, endeavored to kill the officers and take possession of the ship. Officers of other vessels lying near, immediately joined in the conflict. Some of the crew were knocked down and others stabbed. Eight of the ringleaders were put in irons, and fed on bread and water for ten days ; and under such treatment became as subordinate as they always had been.

He gives account of an accident to himself which might have been serious, as follows :

"I went on board a ship where they kept a Spanish bloodhound. He was tied before I went on deck ; but while sitting in conversation with some of my friends, he broke loose and sneaking alongside leaped into my face. The damage I sustained was a wound through the left lower eyelid, a deep cut on the temple, and one under my shoulder, together with a very black and inflamed eye, from all of which, I am happy to inform you, I have recovered. The dog is the most savage of his species. I escaped *very well considering*. He has injured others more seriously."

Referring to mosquitoes, he says : "I sleep under a net which lets the air circulate, but keeps out every kind of insect. You will be pleased to see it. I think the plan so ingenious and good that it will be adopted by many of our friends."

A plain implication from the Doctor's remark is that the mosquito net was a novelty to him in 1819, and not known in the neighborhood of his native place. Are we indebted to the Chinese for this invention ?

The party finally left Canton for Whampoa, Nov. 22. The ship had been moved below the common anchorage when they reached her about noon. She arrived at Lintin on the 23d, and there found the U. S. frigate *Congress*, Capt. John D. Henley, said to have been the first American man-of-war to visit China. She anchored here Nov. 3, with many of the crew suffering from dysentery, ascribed to the water taken on board at Angier. Her presence aroused the suspicion of the Chinese authorities that it meant no good, and therefore they would not allow provisions to be furnished to her from Canton. The *Superior* brought several barrels of bread for her use, and other American merchantmen conveyed to her barrels of beef and pork.

On the 26th Nov. the *Superior* sailed from Lintin homeward bound.

On Saturday, Jan. 16, 1820, then in the Indian ocean, she was boarded from a Patriot privateer, said to be two months out from Buenos Ayres. She was armed with sixteen guns and had a crew of two hundred men.

Dr. Emerson, in his journal, says : "We first discovered her on Friday morning, about three miles off our starboard quarter, standing on the same course. The wind was light and unfavorable ; a high head-swell further impeded our progress. Towards night the strange sail had gained upon us. We thought she showed a desire to speak. Every precaution seemed to have been taken to disguise her real character, by carrying

little sail, but we still suspected her of foul intentions. The night was dark, but she kept close to us and always in sight. In the morning, being off our weather quarter, within gunshot, she ran up a Spanish flag and fired a gun to bring us to. When close to us she backed her topsails, hauled down the Spanish and ran up the Patriot colors, at the same time opened all her weather ports, ran out her guns and brought her whole broadside of eight guns to bear upon us. The star-spangled banner floated over our quarterdeck.

"We now thought ourselves in a rather unpleasant situation. Although no declared enemy, still the many outrages and piracies under what was called the Patriot flag made us fear we might not fare better than others under similar circumstances.

"Her boat, rowed by a set of cutthroat-looking fellows, came alongside. The officer, apparently of inferior rank, wore a belt full of pistols and daggers. He was without a coat and barefooted. A renegade American attended him as interpreter. Having noted the ship's name, the latitude and longitude, etc., this accomplished officer directed his attention to our breakfast table, at which we had just intended to sit down. After refreshing himself and companions, the work of plunder began. They robbed us of many barrels of beef, pork, bread, butter, tea, silk, canvas, iron kettles, live stock, etc. The villains seemed to think themselves as fairly entitled to what they took as if they were purchasers. Whenever they came across anything they fancied, they said with all effrontery imaginable, 'Half for us and half for you,' adding from time to time, by way of consolation, 'We don't want to do you any harm.'

"They stated that they had a great deal of sickness on their ship and were throwing men overboard every day. They tried to induce me to join them, offering any rate of wages I might ask. They had a surgeon, but he was so indifferent that if in my way they would throw him overboard, and so get rid of him. His pay was a hundred dollars a month, but they would allow me any price I asked. Having consulted among themselves aside, they said that they had agreed not to force me to go with them against my will, although they were so much in want of medical assistance. According to their account the prevailing diseases on board were scurvy, dysentery, fever and ague, which had reduced what remained of the crew to a deplorable condition. Receiving a decidedly negative answer from me to their invitation, they next demanded a supply of medicines. I gave them some of a common kind, such as I thought might be useful to the wretches. The suspicious rascally officer took some of each one on the point of a dagger and thrust it into my mouth, watching me intently all the while, not satisfied till he had seen it on my tongue. This experience reminded me of a ludicrous scene in the "Honeymoon," where the doctor is forced to take his own medicine or be thrown out of the window.

"Though they robbed us in this unwarrantable manner, we were not treated as badly as we had expected. A strong breeze sprang up which

prevented their small boats from passing between the two vessels. They permitted us to make sail, but followed in our wake. The breeze stiffened to a gale. Night came, dark and stormy. We changed our course. On the following morning, to our great joy, nothing was seen of our piratical friend."

March 20, the *Superior* was boarded by a Delaware pilot, and in the evening of the 23d reached Chester, 117 days from Lintin. The ship had been absent from Philadelphia sixteen months.

His journal during the voyage contains testimony of industrious study and intelligent observation of all things at sea or on shore that impressed their images on his mind. Marine animals and aquatic birds, wherever they appeared were described. Drawings of some were made. These and original sketches of places seen, and maps of ports visited, with now and then an apt quotation from some poet, illustrate his pages.

He gives detailed accounts of what he saw at Marseilles and on his way to it. Whatever was new to the young traveler seemed to be charming. Appearances of people and things, famous localities with their historical associations combine to quicken curiosity and impart a glow of interest to his record of pageants viewed, of visits to hospitals, public buildings, theatres, museums, etc. Days were passed at Aix, St. Remy, Nimes, Avignon and Vaucluse. Many pages are given to descriptions of the remains of ancient Roman buildings, and of whatever interested him in those places.

He gives interesting accounts of Gibraltar, and describes a visit with a companion on horseback to Algeçiras, a port of Andalusia, six miles west of the famous fortress.

At Angier, in the Straits of Sunda, he tells of the many canoes and boats which came to the ship with fowls, fruits in great variety, vegetables, Java doves and Java sparrows in little bamboo cages, monkeys, paroquets, sea shells, and animals of the deer kind not taller than our domestic cat, and all being at moderate prices found ready sale among strangers. The natural, corporal characteristics of the Malays, seen here, their costume, language, as well as the appearance of their dwellings on shore, the mountain scenery, tropic vegetation, and political condition are sketched and commented upon.

Macao, Whampao, Canton, Lintin ; pagodas, scenery and Chinese boat population along the river are in like manner noticed in detail.

The instruction derived from his observation and study, and the formative influence of his experiences during those months of separation from home, may not be definitely measured, but possibly to his alert mind they were as effective as the training of a college course.

With such preparation for work, on the 4th of August, 1820, the twenty-fifth anniversary of his birth, Dr. Emerson settled himself at No. 37 Chestnut street, Philadelphia, ready to give professional attention to any who might ask it. Possibly the time might have been opportune to introduce a young physician to business. Thirteen deaths from yellow

fever in the city had been reported during the season of 1819. The circumstance had created a vague apprehension of its recurrence, and may have induced people to appreciate practitioners of medicine more highly than when there was no prospect of needing them ; and consequently, new candidates for practice might be more promptly noticed. The apprehension was realized to some extent ; during the autumn of 1820, seventy-three persons died of the disease in the city.

Dr. Emerson was appointed an attending physician of the Philadelphia Dispensary, September 19, 1820, and resigned the office, May 21, 1822.

The City's Councils elected him a member of the Board of Health, March 12, 1823 ; and the Board appointed him its Secretary the same day. It is conjectured that he resigned three years later.

Prevention of the introduction and spread of smallpox in the city at that period attracted attention. Between January, 1818, and December, 1822, five years, only nine deaths from smallpox in the city had been reported. Fear that the disease might again enter the city was no longer manifest. For this reason it was supposed that vaccination had been generally neglected in the community.

The Board of Health was without authority to enforce measures to prevent the spread of the disease, then present, and for this reason its members were not willing to act ; but at the instigation of Dr. Emerson the Board announced in the daily newspapers, three times, that smallpox was in the city and recommended all unprotected persons to be vaccinated without delay. The same year, November 15, 1823, the Board again warned the public of its danger, saying, "And as it is believed that there does exist among some an unjust prejudice against the practice of vaccination, the Board conceives it a duty to declare that the evidence afforded by our city in its long exemption from smallpox, together with the happy results which have followed the introduction of vaccination in all parts of the world, ought to be sufficient to convince the most incredulous of the salutary influence of this inestimable preventive."

Dr. Emerson submitted to the Board for approval and transmission to the Legislature a draft of a law and memorial on the subject. The proposed law in substance provided that vessels having smallpox on board should be quarantined on arrival in the same manner as those affected with other contagious diseases ; that inoculation of smallpox should not be practised in any case without the sanction of the Board ; and that authority already conferred on the Board of Health to deal with contagious diseases specified should be extended to smallpox.

After debating the subject at several meetings, the Board approved the memorial and draft of the proposed law, January 28, 1824, and transmitted them to the Legislature then in session. Although 160 deaths from smallpox had occurred in the city during 1823, a member of the House of Representatives retarded its action on the bill after it had passed the Senate by securing a seemingly innocent amendment to it, but which in fact provided that appointment to offices connected with the Board of Health

might be so made as to reward political and partisan services without regard to fitness of the candidate.

Mr. William Binder and Dr. Emerson were sent to Harrisburg to point out the effect of the amendment, and at the end of four days' work they secured its rejection and the enactment of the original bill. A copy of the act was duly delivered to the Board of Health, April 7, 1824.

His work as a member of the Board of Health, and his communications to the newspapers pointing out the risk of permitting those affected with smallpox to freely mingle with citizens, bear witness to Dr. Emerson's disinterested benevolence.

During 1824, deaths from smallpox in the city numbered 325. They were reduced to six in 1825, and to three in 1826. But these facts are not conclusive that the measures taken by the Board of Health during this period contributed to abate the prevalence of the disease, because, both prior and subsequent to this time, the rate of mortality from smallpox in the city, between 1807 and 1840, fluctuated in the same striking manner, as Dr. Emerson shows in his papers on *Medical and Vital Statistics*, published in "The American Journal of the Medical Sciences," November, 1827, November, 1831, and July, 1848.*

Dr. Emerson published in "The Journal of the Medical and Physical Sciences," February, 1823, a brief and interesting memoir of Dr. James Sykes, who was his first preceptor in medicine; and a charming biographical memoir of Dr. Samuel Powel Griffitts, in the "North American Medical and Surgical Journal," in 1827.

July 6, 1832, Dr. Emerson, accompanied by Dr. Isaac Hays, visited the first case of "spasmodic cholera" that occurred in the city, his original description of which is in his commonplace book.

The disease became epidemic. Deaths from it numbered 1021. Dr. Emerson had charge of the Hospital for Orphans. As a token of appreciation of his service during the epidemic, a silver pitcher was presented to him, upon which is inscribed:

To
Gouverneur Emerson, M.D.,
The City of Philadelphia,
Grateful for his disinterested and intrepid exertions,
In a period of public calamity.

——:o:——

Transeat in exemplum.

He lectured in the Franklin Institute of Pennsylvania in 1833, on meteorology, and in 1834, he delivered another course on heat, electricity and galvanism, in connection with the subject.

* Mr. Pliny E. Chase reported at a meeting of the American Philosophical Society, February 5, 1869, and subsequently published, his *Comparative Statement of Mortality in the Society of Friends and that of the General Population of the City of Philadelphia from* 1800 *to* 1869, which, he states, was compiled largely from Dr. Emerson's papers.

Dr. Emerson was chosen to be a member of the American Philosophical Society, April 19, 1833. At stated meetings he made many brief communications on many subjects, which are recorded in Vol. i to Vol. xvi of the published Proceedings.*

He was one of the Councilors of the Society during ten years, from 1837 till the end of 1846.

He delivered a lecture *On the Advantages Derived from Cultivating the Arts and Sciences*, before the Philadelphia Mercantile Library Association, in the hall of the Musical Fund Society, December 8, 1839.

Among other points of interest, he states that the first successful attempt to cross the Atlantic in a vessel propelled by steam was made in a steamship called the *Savannah*, commanded by Moses Rogers, a native of Connecticut, but long a resident of Philadelphia. He sailed from New York, March 28, 1819, and arrived at Savannah, Ga., April 6, whence, after some delay, he crossed the ocean and arrived at Liverpool, June 20, having used steam or sails, as the wind permitted. From Liverpool the *Savannah* went to Elsineur, Stockholm, Cronstadt, St. Petersburg and Copenhagen. She then returned to Savannah, Ga., and thence went to Washington, D. C. Thus the practicability of crossing the Atlantic in a vessel propelled by steam was first demonstrated by an American.

In this connection he relates how Thomas Godfrey, an obscure citizen of Philadelphia, from a casual observation of the reflection of light, perceived the principle upon which he constructed, in 1730, the mariner's quadrant, and how he was robbed of the credit of his invention, and claims that Godfrey is entitled to "the lasting gratitude of all concerned, either directly or indirectly, in nautical pursuits, by inventing the only instrument that can securely guide the ship when far from land," and they should not permit only "a fragment of the most perishable stone" "to mark but for a few years longer the grave of Godfrey."

This appeal induced members of the Mercantile Association and others to construct a suitable monument to Godfrey's memory.

* The subjects upon which he made oral or written communications are as follows:

The production of electricity from the animal body; the production of electricity from steam; observations on Mower's paper on meteorology; excessive mortality of male children; effects of hot weather on infants; causes operative in changing the proportions of the sexes at birth; importance of phosphoric acid in agriculture; phosphorescent light produced in the diamond by friction; the compound action of the mental and optical faculties concerned in vision; cultivation of cotton in the Northern States; cleaning flax-fibre for market; extent of propagation of atmospheric vibrations produced by explosions of powder; manufacture of the sugar and syrup of sorghum; imphæ, or African sugar cane and cultivation of sorghum; improvements in Whitney's cotton gin; Robbini's process for preserving wood from decay by injecting into it vapor of coal tar; remarks on the part taken by the American Philosophical Society in connection with the Franklin Institute, to establish stations for meteorological observations; earthquake of October 20, 1870, reported November 4, 1870, as to expanse over which shocks were noted; lunar influence on wet and dry weather; ascription of the gradual translation of the peach-tree belt southward on the Atlantic coast to the progressive removal of the forests, causing exposure of the fruit trees to severe climatic fluctuations.

The closing paragraph of this interesting lecture is here cited as a fair sample of its style and tone.

"I hope I have said enough to prove that for prosperity and security, nations are mainly dependent upon the intellectual capacities and acquirements of their citizens. We have never known or heard of one that has not experienced its days of trial, and it cannot be supposed that our own country, whose hills and valleys now rejoice in the possession of peace and abundance, can always be exempt from calamity. If ever driven by adverse fortune to fearful extremity, happy will it be for her, if, in that day, like France at the crisis referred to, or like England—sustained during her long and dreadful conflicts by the resources furnished through her Watt—be rescued by her philosophers! Let us, therefore, like France, and the mighty people from whom we chiefly spring, use all our efforts to foster and diffuse the arts and sciences, and to banish the word *impossibility* from our vocabulary."

Dr. Emerson delivered an address, June 1, 1843, at Laurel Hill Cemetery on the completion of an unostentatious monument erected to the memory of Thomas Godfrey.

The reason for this tribute is stated in the address, substantially as follows:

One day while an ingenious young man, Thomas Godfrey, a glazier, was replacing a pane in a window on the north side of Arch street, opposite to a pump, a girl after filling her pail placed it on the sidewalk. Turning towards it he saw that the image of the sun was reflected from the window into the bucket of water, and from it back to his eye.* This simple observation led him to study the law of the reflection of light, and to invent a quadrant with speculums to take the distances of stars which he supposed might be of service at sea. The same year, 1730, he had made his reflecting instrument.† One was taken to the West Indies and used during the voyage to ascertain the latitude. It was brought back to Philadelphia before the end of February, 1731. The practical value of the instrument was thus demonstrated.

Although James Logan, in May, 1732, described the mariner's quadrant constructed by Godfrey in a letter to the celebrated mathematician, Dr. Edmund Halley, then President of the Royal Society of London, he did not obtain credit for his invention. It is believed that Dr. Halley

* John F. Watson, in his "Annals of Philadelphia," states this incident somewhat differently. According to his account, which seems to be accurate, Godfrey was glazing at Stenton, the residence of James Logan, and noticed the reflection of the sun's image from the window to a piece of fallen glass and from it to his eye. He immediately went into Mr. Logan's library and took from the shelf a volume of Newton's works to consult. Mr. Logan entered almost at the same time, and asked him the object of his search, and was much pleased with Godfrey's ingenuity, and from that time became his zealous friend.

In those days glazing was done by soldering the panes into the frame work. Glaziers were also plumbers, and did not paint.

† He lent one to Joshua Fisher for trial in his surveys of the Delaware. See Watson's "Annals of Philadelphia."

suppressed Mr. Logan's letter, and communicated the description of Godfrey's quadrant to Hadley, a mathematical instrument maker in London, who, after making slight mechanical changes in the instrument, obtained a patent for it. In this way Godfrey's invention came to be unjustly called Hadley's quadrant.

Dr. Emerson establishes Godfrey's right to priority of invention on the testimony of James Logan, Benjamin Franklin, Peter Collinson and others.

Thomas Godfrey was born in Bristol township, near Germantown, on his father's farm of 150 acres, in 1704, and died in 1749, and was buried there.* He was fairly educated, and was a member of Franklin's famous Junto. He taught himself to read Latin.

Mr. John F. Watson, the annalist, convinced of the wrong done to Godfrey, sought his grave, ascertained the inscription which had become illegible on the gravestone, and in 1838, at his own expense, had the remains with those of his wife, father and mother transferred to Laurel Hill Cemetery.

The Mercantile Library Association and certain inhabitants of Germantown jointly contributed means to erect a monument to Godfrey, the completion of which was the occasion of Dr. Emerson's address.

Possession of several hundred patrimonial acres in Kent county, Del., accounts for his attention to agricultural affairs. He made numerous and extensive experiments to ascertain the comparative value of different fertilizers. He erected a building on Frankford creek, Philadelphia, in which was manufactured, under the direct management of a Frenchman named Jourdan, a fertilizer called Jourdan's phosphate. This product was extensively used during several years. In 1844 or '45, two tons of Peruvian guano were brought to Philadelphia as a sample. At his suggestion he and his friend, Mr. D. B. Cummins, purchased each a ton and introduced it to the farmers of Delaware. On one of his farms he constructed a mill for crushing bones by horse power. The work was imperfectly done; but by treating the crushed bones with sulphuric acid and mingling the product with ashes and fine earth a fertilizer was produced which proved to be a good substitute for Peruvian guano, and cost much less. By observation and experiment he ascertained, in 1849, that the delightful and peculiar flavor of our so-called grass butter is due to the sweet-scented vernal grass—*Anthoxanthum odoratum*—which flourishes in pasture fields till about the end of May, and upon which the cows feed. He obtained from this sweet vernal grass an essential oil, and ascertained that it contains *benzoic acid*, upon which its flavor depends; and that a small quantity of benzoic acid administered to a cow imparted to the butter made from her milk the same flavor it has while sweet vernal grass forms part of her feed.† He delivered appropriate addresses before horticultural and agri-

* Watson's "Annals of Philadelphia."

† See, Letter, Oct. 31, 1849, from Dr. Emerson to the Commissioner of Patents. Report of the Commissioner of Patents for the year 1849, Part II—Agriculture—pp. 372-75.

cultural societies at several places in Delaware and Pennsylvania, and published a pamphlet on the cultivation of cotton in the Middle States. He edited *The Farmer's Encyclopedia and Dictionary of Rural Affairs*, an octavo volume of 1173 pages, illustrated by seventeen plates, which was published by Carey & Hart, in 1844. In adapting it to American use, Dr. Emerson added to the original English text about thirty per cent. of the volume.

Although attentive to whatever related to agricultural improvements, he was seriously interested in medical affairs.

In 1845 the New York State Medical Society invited the medical institutions of the country to appoint delegates to meet in the city of New York on the first Tuesday of May, 1846, and form a National Medical Convention to devise measures to promote the common interests of the medical profession and improve medical education. Many prominent physicians, representing medical bodies in different parts of the United States, were present. Dr. Emerson, one of the delegates from the Philadelphia Medical Society, was with them.

On organizing the meeting it was found that 133 delegates from medical societies in sixteen of the twenty-nine States were duly accredited, and that seventy-five of them were from New York. This partial and unequal representation led a delegate to propose that the Convention should at once adjourn *sine die*. His proposition was not accepted. After due deliberation officers were elected, and committees were appointed to prepare a plan of organization, etc., and among them a committee to prepare a code of medical ethics to govern the medical profession of the United States. Dr. Emerson was appointed a member of it.

The several committees were instructed to report at a meeting of the Convention to be held on the first Wednesday of May, 1847, in Philadelphia.

The National Medical Convention met at the appointed time, May 5. Of 239 delegates elected to it from twenty-two States, including the District of Columbia, 175 were present.

The committees appointed in New York presented their reports, which were duly considered.

The Convention, by a resolution adopted May 7, became the American Medical Association. The new organization elected officers, appointed standing committees and adjourned to meet in Baltimore on the first Tuesday of May, 1848.

Dr. Emerson participated in the creation of the American Medical Association. In a note written by him on the cover of a copy of it, he claims that the Code of Medical Ethics was compiled exclusively by Dr. Isaac Hays and himself. The Association still holds its annual meetings, always to the advantage of the medical profession, and is recognized as authority on questions of medical policy in the United States.

Dr. Emerson was a member of its first Committee on Publication, 1847, and served on till 1853; of the Committee on Medical Sciences, and con-

tributed to its report of 1850, Vol. iii, pp. 91–94, "Observations on Vital Statistics;" of the Committee on Hygiene, 1851; and of the Committee of Arrangements, 1855.

Dr. Emerson was elected a fellow of the College of Physicians of Philadelphia, February, 1847. He never contributed to its Transactions. He was elected a delegate from the College to the American Medical Association in 1849, and in 1858; and to the National Quarantine and Sanitary Convention in 1857, and 1858.

He was a member of the Academy of Natural Sciences of Philadelphia from August, 1853; of the Philadelphia County Medical Society from 1857, of which he was President; and of the Medical Society of the State of Pennsylvania.

Dr. Emerson's medical practice from about 1828 to 1840 was lucrative and extensive. His interest in agricultural affairs, always notable, gradually increased with the lapse of time, and his interest in medical affairs gradually abated till he relinquished the practice about the year 1857.

Dr. Emerson, by invitation, began to live with Mr. Henry Seybert, at No. 926 Walnut street, in May, 1856. Apartments in the house were assigned to each proportionately. Dr. Emerson was the caterer, though they did not mess at the same table, and kept a detailed account of the household expenses which were periodically and equally shared. They lived together in perfect harmony eighteen years—till Dr. Emerson died.

Mr. Henry Seybert and Dr. Emerson were warm friends. Their close association is notable because their pursuits and aims in life were wide apart. Their mental characteristics were quite different. They were alike in condition. Both were unmarried, and both in easy circumstances. In some respects their tastes and ways were the same, simple, economical.

Dr. Emerson had a working knowledge of botany, mineralogy, geology and physics. Mr. Seybert had been educated in Paris, and trained in the School of Mines to be a chemist and mineralogist, and after his return home did some good work. In these scientific paths they were congenial. But Mr. Seybert was deeply imbued with religious sentiment.

While he was in Paris mesmerism attracted public attention, and he became interested in spiritualism.

He had read that "it is easier for a camel to pass through the eye of a needle than for a rich man to enter the kingdom of heaven." His construction of this sentence made him unhappy. He was so much tormented by the thought that all his attempts to lead a good life were useless as regards *future* existence because *he was rich*, that he consulted pious men on the subject, and among them the Archbishop of Rouen. By them he was assured that the sentence was addressed to the *sinful* rich *only*, and not to those who gave of their goods liberally to the poor.* Whether his many charities were prompted more by disinterested consideration for others than by this assurance is conjectural. Be this as it may,

* Obituary Notice of Henry Seybert, by Moncure Robinson. Read before the American Philosophical Society, Oct. 5, 1883.

Mr. Seybert was known for his charity and public spirit,* but most distinguished by his deep interest in a supposition or doctrine that after death and disintegration of his body by natural decay or cremation, a man's soul, wearing the carnal appearance of himself, may, at any time, be made manifest to the living through the medium of specially endowed persons, and in this manner communication with the world of spirits may be held. In this modern spiritualism he was a staunch believer. Shortly before his death he gave to the University of Pennsylvania $60,000 to found a chair of philosophy, on condition that the University should appoint a commission to investigate "all systems of morals, religion or philosophy which assume to represent the truth, and particularly of modern spiritualism."†

While Mr. Seybert was engaged in the study of spiritualism, Dr. Emerson, who had no respect for his friend's belief, was occupied in endeavoring to improve agricultural methods and in cultivating his several farms in Delaware.

His mother, Mrs. Ann Hayes, died in 1862, aged 86 years. Her long life was exemplary in every sense, unselfish and continuously kind and charitable. The positions occupied by her children are significant of the mother's attention and care for their welfare. To her Dr. Emerson late in life ascribed his first love for the British classical writers.

Society in Philadelphia was discordant at the outbreak of the great Rebellion, because the interests and affiliations of many of its residents were in the South and with the rebels. Those persons were openly defiant, threatening and at times belligerent. To determine if possible who were and who were not to be trusted, a few loyal men held midnight conclaves

* Among acts which may be ascribed to his public spirit was Mr. Seybert's unsolicited gift to the city. He substituted a new for a good old clock and bell which had long well served to ring out the hours, joyful news as well as alarms, from the State House steeple to very far-off dwellers in the city. Unexpectedly the sound of the Seybert bell is comparatively very feeble, scarcely audible more than 500 feet in any direction during the busy hours of the day, or at any time when there is a moderate breeze.

In the following humerous stanza, its author makes use of this circumstance to contrast the "clash and jingle" of St. Mark's chime of bells which greatly disturbed the neighbors at the time:

"There's a bell whose swinging gives out no ringing,
And I hear no dinging in the State House yard;
And where its rolling looks like tolling
I stand and tremble lest my hearing's hard;
For, with steeple rocking and hammer knocking,
And people mocking,
I hear no more
The low dull mutter
Those dumb lips utter
Than the stone Washington before the door."

† Preliminary Report of the Commission appointed by the University of Pennsylvania to Investigate Modern Spiritualism, in accordance with the bequest of the late Henry Seybert (page 5). J. B. Lippincott Company, Phila., 1887.

Henry Seybert died March 3, 1883, aged 82 years.

which ultimately resulted in the organization of the Union League of Philadelphia, December 27, 1862, the members of which were pledged to "unqualified loyalty to the government of the United States and unwavering support of its efforts for the suppression of Rebellion." *

Dr. Emerson, who was elected a member February 16, 1863, daily visited the Union League and participated in its proceedings till the end of his life.

Dr. Emerson did not devote his time and thought exclusively to the practice of medicine and agriculture. He was interested in questions of political economy, social science. He translated the second edition of Le Play's "Organization of Labor," a learned and valuable contribution to the literature of the subject. This work, the last from his pen, was published in 1872.

He died very suddenly in his office, July 2, 1874, near the end of the 79th year of age. His grave is next to that of Thomas Godfrey, Laurel Hill Cemetery.

He bequeathed his ample estate, including several farms, which together contain more than a thousand acres of arable land in Delaware, to his kinsmen.

His long life was virtuously spent, and so far he was above the bulk of mankind. Seemingly always under the influence of his early Quaker training by his mother, never manifesting the least pretension to piety, or solicitude about his future existence, his daily conduct was shaped in obedience to the precepts of the Decalogue and of Christianity. Naturally modest and considerate of the rights of others, he was never aggressive. A dignified and courteous demeanor, varied attainments and the easy flow of his conversation made him a welcome and frequent guest in the society of good and cultivated people.

A genius for persistent labor never permitted his talents, which were far above the average, to be idle. His career was marked by habitual industry and useful work rather than by special achievement in any of his pursuits. Though not a discoverer, or a great leader in science, his exemplary conduct and benevolent labors entitle him to general approbation, and his memory to our kindly respect.

Appendix.

A list of Dr. Gouverneur Emerson's publications :

"A Biographical Memoir of Dr. James Sykes, February, 1823." "Chapman's Journal of the Medical and Physical Sciences."

"Biographical Memoir of Dr. Samuel Powel Griffitts, 1827." "The North American Medical and Surgical Journal."

"Medical Statistics, being a Series of Tables showing the Mortality in

* Twenty-fifth Anniversary of the Organization of the Union League of Philadelphia, December 27, 1887. Press of J. B. Lippincott Company, Philadelphia, 1888.